WHAT IS CLAIMED IS:

1. A system for measuring circuits on an integrated circuit substrate, comprising:

a measurement circuit formed on the integrated circuit substrate which measures at least one characteristic of an integrated circuit,

the measurement circuit comprising a power transfer device including a power transfer component, which receives energy from a source where the source does not make physical contact with the integrated circuit substrate to transfer power to the measurement circuit.

2. The system as recited in claim 1, wherein the integrated circuit substrate includes a chip formed on a semiconductor wafer.

3. The system as recited in claim 2, wherein the measurement circuit is formed in a kerf area of the chip.

4. The system as recited in claim 1, wherein the power

transfer device includes an inductor coil and the source transfers energy via inductive coupling.

5. The system as recited in claim 1, wherein the power transfer device includes a photo sensor and the source transfers energy via light.

6. The system as recited in claim 5, wherein the photo sensor includes a photodiode and the source includes a laser.

7. The system as recited in claim 1, wherein the power transfer device includes a capacitor and the source transfers energy via capacitive coupling.

8. The system as recited in claim 1, wherein the measurement circuit includes a control circuit, which conveys measurement information.

9. The system as recited in claim 1, wherein the at least one characteristic includes at least one of a layer thickness

and a circuit parameter or response.

10. A system for measuring circuits on an integrated circuit substrate, comprising:

a semiconductor wafer including a plurality of chips;

a measurement circuit formed on at least one of the chips, the measurement circuit measures at least one characteristic of an integrated circuit,

the measurement circuit including a power transfer component which receives energy from a source where the source does not make physical contact with the semiconductor wafer to transfer power to the measurement circuit; and

a test device including the source, which delivers energy to the power transfer component of the measurement circuit.

11. The system as recited in claim 10, wherein the measurement circuit is formed in a kerf area of the chip.

12. The system as recited in claim 10, wherein the power transfer component includes an inductor coil and the source

transfers energy via inductive coupling.

13. The system as recited in claim 10, wherein the power transfer component includes a photo sensor and the source transfers energy via light.

14. The system as recited in claim 13, wherein the photo sensor includes a photodiode and the source includes a laser.

15. The system as recited in claim 10, wherein the power transfer component includes a capacitor and the source transfers energy via capacitive coupling.

16. The system as recited in claim 10, wherein the measurement circuit includes a control circuit, which conveys measurement information.

17. The system as recited in claim 10, wherein the test device includes a thin film dielectric membrane having the source mounted thereon.

18. The system as recited in claim 10, wherein the test device includes a probe ring.

19. The system as recited in claim 10, wherein the at least one characteristic includes at least one of a layer thickness and a circuit parameter or response.

20. A method for contactless measurement of a circuit characteristic, comprising the steps of:

providing a measurement circuit in a semiconductor chip;

coupling power to the measurement circuit from a source without making physical contact with the chip;

measuring at least one characteristic of the chip using the measurement circuit; and

responding to the at least one characteristic value.

21. The method as recited in claim 20, wherein the step of coupling power includes transferring power inductively.

22. The method as recited in claim 20, wherein the step of coupling power includes transferring power optically.

23. The method as recited in claim 20, wherein the step of coupling power includes transferring power capacitively.

24. The method as recited in claim 20, wherein the step of responding to the at least one characteristic value includes scrapping the chip.

25. The method as recited in claim 20, wherein the step of responding to the at least one characteristic value includes adjusting a process parameter to adjust the characteristic value.

26. The method as recited in claim 25, wherein adjusting a process parameter includes switching mask plates to alter the characteristic value in later steps.

27. The method as recited in claim 25, wherein the step

of responding includes adjusting a second component to compensate for a previously formed component.

28. The method as recited in claim 20, further comprising the step of storing measurements in a database.